

THE PROFILE OF OPIOID-DEPENDENT PATIENTS REFERRED TO SEMBADA HOSPITAL, MEDAN, INDONESIA

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Drug dependence has become a real concern among parents in Indonesia and is now a national, as well as global health problem. The objectives of this study were to find out the profile of opioid-dependent patients referred to Sembada Hospital, Medan, North Sumatera Indonesia for treatment. Patients were interviewed when they were sober, using questionnaires. There were 45 participants, mostly below 30 years old, male, and not well educated and single or divorced. Almost all of them (95.6%) had a smoking habit, which started at an early age. Most of the participants were either the eldest child (24.4%) or the youngest child (35.6%) in the family. Their first illicit drug was mostly marijuana (66.7%), which they started using before the age of 20 years. Polysubstance use was common. It was usually a combination of opioids, tobacco, cannabis and amphetamine. They used opioid by injection (heroin injecting drug user) and out of 22 participants who agreed to a blood test, 20 were positive for hepatitis C. Many had been previously involved in various crimes.

Keywords: Opioid-dependent, Sibling, Smoking-habit, Polysubstance use, Hepatitis C

INTRODUCTION

Substance abuse occurs among persons of all ages, although the types of substance used might be different according to the age groups. Adolescents mostly use marijuana, amphetamine groups, cocaine or heroin, while the older populations mostly use alcohol or benzodiazepine (Prater 1999).

Drug addiction or drug dependence as it is now called, is a serious health problem. In addition to the huge direct health costs (e.g., psychiatric, physical and hospital), there are massive costs in terms of loss of earnings and productivity, education, social damage and crime (French

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et al. 1998). Although the wider causes of substance abuse are not directly an established drug or substance problem. However, good clinical practice demands that attention be given to personal, family and subculture situation. Thus, in planning for future health services, the factors that have led to drug misuse in its current situations must be considered. Few diseases have as significant an impact on patients and their families as the addiction disorders (Spooner, Mattick and Noffs 2000).

The pattern of substance abuse is different from one individual to another as well as from one population to another; there was interaction between drug or substance availability, heritability and family context and individual psychopathology (Meyer 1996). Information about the patterns of abuse is necessary for health service planning and provision (Spooner, Mattick and Noffs 2000). In Indonesia, there is very limited information about the patterns or profile of drug or substance use, or substance dependence. Although some Indonesians, especially adolescents, have been abusing substances, because of our present condition and situation, it is very difficult to obtain the real pattern of illicit substances abuse. Therefore, our study is limited to the profile of opioid-dependent patients, as it is mostly these patients who come to seek treatment at our hospital.

Opioid use has increased dramatically in Medan and Indonesia just like in South East Asia and Western Pacific Region (WHO 2002). Information about the country's profile of opioid dependents is important because the patterns of substance abuse are different from country to country (Brown 2002; Madoz-Gurpide and Ochoa 2003). Such information can help us formulate a plan of action to deal with the complex and immense problem of drug dependence. Opioid abuse or dependence is a burden both to the user and his family as well as to the society in general. Opioid dependence has become one of the most prevalent psychiatric illnesses during recent years, (McLellan *et al.* 2000; Farrel *et al.* 2002) and yet, in Indonesia, very few studies have looked into the profiles of opioid-dependent patients.

In this study we evaluated the profiles of opioid-dependent subjects, because not all the participants were heroin-dependent. One subject was pethidine-dependent, who was a nurse. Health care professionals like doctors or nurses are among the job groups that have a high risk for substance misuse, especially pethidine (Black 1999; Chaturvedi, Phukan and Mahanta 2003). Opioid is a class of substances that acts on opioid

receptor. Morphine is a naturally occurring opioid, obtained from crude opium. Crude opium is a white substance that turns into a brown gum, extracted from the pod of poppy seed of *Papaver somnifera*. Heroin is a semi synthetic product while pethidine is synthetic.

METHODS

The study sample comprised of all patients who came to the hospital seeking treatment for opioid dependence, between January 2006 and May 2006. We chose only patients who met the DSM-IV-TR Diagnostic Criteria (First and Tasman 2005). The participants were interviewed using a questionnaire.

The questionnaire was developed by the investigators and pre-tested before conducting the study. The questionnaire solicited information on demographic profile, substance and opioid use. The interview was conducted when participants were sober or when they were not under the influence of substance, sedated or in withdrawal syndrome. Participants were accompanied by their relatives during the interview. They were given information about the study prior to the interview. Confidentiality was assured and informed consent was obtained from each participant. Ethical clearance and approval of the study was given by the Ethical Committee on Health Research of the Faculty of Medicine, Universitas Sumatera.

RESULTS AND DISCUSSION

Demographic Data

Table 1 shows the demographic data of participants. There were 45 participants recruited from January to May 2006. Data presented in this report shows that 93.3% of the participants were male. Gender is an important individual risk factor (Kodjo and Klein 2002). Males have higher rates of substance use than do females (Brown 2002). Data about education and occupation show that most of them were poorly educated which could have led to unemployment (60.0%). During the interview we found that most of them did not have a permanent job because they were young and lacked the necessary qualifications. They also had little interest or motivation in life.

Table 1: Demographic characteristics of the participants (N = 45)

		Number	Percentage
Sex	Male	42	93.3
	Female	3	6.7
Age (years)	17 to 20	7	15.6
	21 to 25	21	46.7
	26 to 30	11	24.4
	over 30	6	13.3
Education	Primary high school	7	15.6
	Secondary high school	22	48.9
	College	15	33.3
	University graduate	1	2.2
Occupation	Student	9	20.0
	Government civil servant	3	6.7
	Private company employee	6	13.3
	Unemployed	27	60.0
Marital status	Married	10	22.2
	Divorced/separated	2	4.5
	Single	33	73.3
Sibling	Eldest child	11	24.4
	Youngest child	16	35.6
	Second child	5	11.1
	Third child	9	20.0
	Fourth child	3	6.7
	Fifth child	1	2.2
Smoking habit	Yes	43	95.6
	No	2	4.4
Age at start of smoking (years)	10 to 15	27	62.8
	16 to 20	16	37.2

Another interesting finding was their order of birth in the family. A total of 24.4% were the eldest child in the family and the 35.6% were the youngest child. Indulging a child is a risk factor for substance use (Kodjo and Klein 2002; National Institute on Drug Abuse 2002). In Indonesia, it is common to find many families indulge their first born or youngest child compared to other siblings.

Tobacco use started at quite an early age. About 62.8% of them started smoking between 10 to 15 years old. Monitoring the Future (MTF) in

USA found that 47.4% of 10th graders and 57.2% of 12th graders already smoked cigarettes at least once in their lifetime (National Institute on Drug Abuse 2002). Tobacco or cigarette use in adolescents should be a cause for concern because this can easily progress to cannabis use. This study shows that 66.7% of the participants started their illicit drug use from cannabis. Starting cigarette smoking at an early age can increase the likelihood of tobacco dependence or other illicit substance (Dias 2002). About 1 in 4 (24%) of drug dependents in the USA had a history of tobacco dependence (Anthony, Warner and Kessler 1994).

First Substance Used by the Participants

Table 2 shows that 66.7% of the participants used cannabis as their first illicit drug. Cannabis can easily be found in Medan and North Sumatera because Aceh, the producer of marijuana is not far from Medan. Marijuana is a gateway drug to a more serious addictive drug like opioids. The participants admitted that when they used marijuana for first time, they obtained it from their friend, mostly for free (82.2%). After they were dependent on marijuana, then they had to pay for it. The same thing happened to other substances like amphetamine and opioids.

Most of the participants (73.3%) started using their first substance while they were in their early or late teens (i.e., below 20 years old). This finding stresses the importance of parents being more aware of who their children's friends are, how they behave, and what kind of family they are from (Kodjo and Klein 2002; Brown 2002).

Table 2: Characteristic of the first illicit drug/substance, used by participants (n = 45)

	Number	Percentage
First substance used		
Cannabis	30	66.7
Amphetamine	5	11.1
Opioid	9	20.0
Benzodiazepine	1	2.2
Age of first substance use (year)		
10 to 15	15	33.4
16 to 20	18	40.0
21 to 25	10	22.2
26 to 30	1	2.2
over 30	1	2.2

Polysubstance Use

Table 3 shows that 95.6% of the participants smoked tobacco everyday. Frequent but non-daily uses of cannabis, amphetamine and alcohol were reported by 57.8%, 53.3% and 20.0% of participants, respectively. Alcohol use took the form of occasional “binge drinking”, for example at a party. Participants said that they used other substances as a substitute for opioid to improve their mood (e.g., amphetamines) but eventually they always returned to opioid. Cocaine was used by one participant when he was in Jakarta but after he returned to Medan, he stopped using it because cocaine was not available in Medan. This case illustrates the effect of availability of a substance as proposed by Meyer (1996).

Benzodiazepine was used on non-daily basis by 8.9% and on daily basis by 6.7% respondents. Those who used benzodiazepine on a daily basis claimed that they acquired the dependence to this substance after receiving treatment in a residential drug-treatment center where benzodiazepine was used to overcome their withdrawal symptoms from opioid. Therefore, the use of benzodiazepine in these participants might have resulted in a kind of iatrogenic addiction (Jiang 1992).

We found that the pattern of polysubstance use seemed to be different from that reported elsewhere (Nunes and Parson 1995; Spooner, Mattick and Noffs 2000, Leri, Bruneau and Stewart 2003). This was probably due to the difference in availability of the substances in different areas.

Table 3: Use of substances among the participant (n = 45)

Substance	No Use (%)	Ever used (%)	Non-daily Use (%)	Daily Use (%)
Tobacco	4.4	95.6	-	95.6
Cannabis	33.3	66.7	57.8	-
Amphetamine	46.6	-	53.3	-
Alcohol	80.0	-	20.0	-
Cocain	97.8	2.2	-	-
Pethidine	97.8	-	-	2.2
Heroin	-	-	-	100.00
Benzodiazepine	84.4	15.5	8.9	6.7

Note: “No use” refers to never use the substance

“Ever used” refers to use substance at least once during their lifetime

“Non-daily” refers to use is frequently but not daily

Risk-Taking Behaviour

Almost all participants in this study used injection (i.e., injecting opioid user 91.1%) and only 8.9% were heroin chasers. Heroin chasers use opioid by putting the opioid powder on a piece of aluminium foil, placing the foil over a burning candle and inhaling the smoke produced. The method is called "chasing the dragon". This method is relatively safer than the injection route because it reduces the risks associated with injection use as it does not require needles (harm reduction) (Strang *et al.* 1999). However, this was not a consideration for the injecting heroin users in this study, who continued using injection as their preferred method despite the risk. These injecting drug users claimed that they achieved the "kick" or "high" better by injection compared to "chasing the dragon".

As a result, we found that 20 out of 22 participants whose blood was tested were positive for hepatitis C. This finding is alarming because it highlights the ignorance and limited knowledge of the participants about the risk of using needles. The management of hepatitis C infection is expensive. In Australia, Brown and Crofts (1998) reported that \$14.32 million was spent in health care for every 1,000 injecting drug users infected with hepatitis C virus.

In this study we advised the participants to test for HIV but they refused because of the cost and of fear of getting a positive result to the test. This matter should be emphasized during campaigns against illicit drugs in schools and among parents and adolescents.

Criminal Behaviour

In this study we could not determine the exact daily dose of opioid used by the participants because they themselves did not know exactly how much of the substance they used. They used these substances from packages but did not know the weight of the content in each package. We recorded only the price or the amount of money they spent everyday. These participants required a lot of money everyday, which might have lead them to be involved in various crimes to support their habits.

CONCLUSION

Participants in this study were young with low education background and were also unemployed. Many were polysubstance users; with tobacco, cannabis, and amphetamine being the main substances used. Most of them were injecting drug users, which might explain the high frequency of positive hepatitis C test. This is a serious matter that needs further consideration for policy makers, health and community planners. We recommend that studies evaluating the profile and patterns of drugs abuse be done regularly, involving more participants. Funds should be raised to enable blood tests for hepatitis C and HIV infection to be offered to these drug dependents free of charge or at a reduced cost.

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